

predetermined rule, and is connected to the agent servers 110-1 through 110-n mediating each P2P Web sequentially according to the accessing sequence at step S70. For example, the decision rule of the accessing sequence can be made by 5 arraying the P2P Web depending on a sequence of numbers of IP(internet protocol) addresses.

Then, the main server 10 sends a predetermined search condition to any one of the P2P Web agent servers 110-1 through 110-n through the data communication network 300, and 10 searches for the digital file at step S80. The search condition is set through the Web page for the user interface of the sharing search program for the main server 10 by the supervisor. As an example, the search condition includes the name of a writer and the title of the literary work. Further, 15 in the case of a music file, the search condition may include a sampling rate of the music file.

Next, the main server 10 receives the search results from any one of the servers 110-1 through 110-n through the data communication network 300, and determines whether or not the 20 search result value corresponding to the search condition has existed in the search result at step S90.

If it is determined that there is no result value corresponding to the condition, the main server 10 decides all the files having the identifier(e.g. the advertising digital 25 file, the digital file with a low quality, or the encrypted

digital file), which correspond to the literary work requiring the protection inputted by the supervisor at step S10 and stored in the storage unit 12 at step S20, to be shared, generates information of the digital file decided to be 5 shared, and stores the information in the database 11 at step S100.

On the other hand, if it is determined that there has been a search result value corresponding to the search condition at step S90, the main server 10 receives only some 10 parts of the searched digital file from user terminals 200-1 through 200-n connected to the P2P Web at step S110.

As an example, the reception of only some parts of the digital file can be performed by sending a digital file transmission request signal from the main server 10 to the 15 user terminals 200-1 through 200-n connected to the P2P Web, receiving the digital file from a corresponding user terminal, and stopping the reception of the digital file from the user terminal if the capacity of the received digital file exceeds the preset capacity.

20 The reception of the digital file at step S110 is performed so as to determine whether or not the identifier inserted by the managing company of the main server 10 and the sub-servers 20-1 through 20-n exists in the digital file shared through a corresponding P2P Web. As described above, 25 the identifier is inserted into the first or latter parts, or

both parts of the digital file according to the file transmission rules between the main server 10 and the agent servers 110-1 through 110-n. For this reason, the main server 10 receives only some parts, for example first parts of the 5 digital file which are required to determine the existence of the identifier, while considering a searching time and a storage capacity of the main server 10, not the remaining parts thereof.

Next, the main server 10 determines whether or not the 10 identifier has existed in the received digital file by detecting the identifier(e.g. a watermark) at step S120. If the identifier has existed in the digital file according to the determination result, the digital file is decided to be "pass" with respect to its shareability at step S130. On the 15 other hand, if there is no identifier in the digital file, the digital file is decided to be "fail" at step S140. The determination result is stored in the storage unit 12 of the main server 10 as data, or stored in the database 11.

Further, the main server 10 determines whether or not 20 among the searched digital files, there has remained a file not decided yet as to its shareability at step S150. If any file not decided remains, a processing step of the main server 10 returns to step S110 to receive the digital file not decided as to its shareability. However, if there is no file 25 not decided as to its shareability, the main server 10